

Koch, Kristine

From: Koch, Kristine
Sent: Friday, June 28, 2013 11:24 AM
To: 'Bill Locke'
Cc: 'James McKenna'; 'Gene Revelas'; 'Jarrod Gasper'; 'Jennifer Woronets'; 'Sandy Browning'
Subject: RE: Background Dataset

Bill – Thanks. Bob, Jim and I will work on a revised schedule for the background section based on your response.

Regards,

Kristine Koch
Remedial Project Manager
USEPA, Office of Environmental Cleanup

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From: Bill Locke [mailto:wlocke@integral-corp.com]
Sent: Friday, June 28, 2013 11:14 AM
To: Koch, Kristine
Cc: James McKenna; Gene Revelas; Jarrod Gasper; Jennifer Woronets; Sandy Browning
Subject: RE: Background Dataset

Kristine:

Thanks for your response and I'm glad you agree with bullet #1. We very much understand your need for the total PCDD/F data to complete your Section 7 review and are working to get it to you as quickly as possible. My main intent in bullet #3 was to convey why this work hasn't already been done and therefore will take a bit of time to pull together. (Unfortunately, it's not as simple as using the congener data we pulled to calculate the TEQs, because the total PCDD/F sum includes more than just the 17 congeners that go into the TEQ calculation.) As Gene mentioned in his email to you yesterday, Tom Schulz, Integral's LWG project database manager, ^{(b) (6)} and this task will be his priority that day. Integral is also checking internally if there is another data manager that may be able to do this next week, but we have yet to find someone with available time and familiarity with the project.

As for bullet #2, I completely agree with you that PCDD/Fs are a part of the risk assessments. I was simply trying to convey that the total PCDD/F sum used in the RI did not feed directly into the risk calculations, and therefore this particular approach for quantifying PCDD/Fs didn't get flagged for inclusion in the chemical list for Section 7 in the earlier drafts of the RI Report. I apologize that I wasn't very clear on this point.

Thanks,

Bill

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From: Koch, Kristine [<mailto:Koch.Kristine@epa.gov>]
Sent: Friday, June 28, 2013 10:48 AM
To: Bill Locke
Cc: James McKenna; Gene Revelas; Jarrod Gasper; Jennifer Woronets; Sandy Browning
Subject: RE: Background Dataset

Bill – I agree with your first bullet. I disagree with your second bullet. Just because the risk was evaluated as TEQ does not mean that total PCDD/Fs are not a part of the risk assessment. The conversion to a TEQ is a means to evaluate the exposure to the receptor, but it in no way implies that the total PCDD/Fs in the sediment are not expressing risk to the receptors. As for the third bullet, I guess you misunderstood what I was saying. I meant that if you would have to pull the congener data to apply the TEF to sum for TEQ, then you should already have the congener data pulled that it should be an easy exercise to merely sum the congeners to get a total. We still need the Total PCDD/F background data and I would like to know when we can get that from the LWG.

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From: Bill Locke [<mailto:wlocke@integral-corp.com>]
Sent: Thursday, June 27, 2013 4:00 PM
To: Koch, Kristine
Cc: James McKenna; Gene Revelas; Jarrod Gasper; Jennifer Woronets; Sandy Browning
Subject: FW: Background Dataset

Kristine,

Gene is out of pocket this afternoon and passed your questions along to me and Jarrod to address. I'd like to offer a few general clarifications regarding Total PCDD/Fs based on your email:

- You are correct that Total PCDD/Fs appear prominently in the RI Report as one of the indicator contaminants. Total PCDD/Fs are computed for purposes of the RI as the sum of the tetra- through octa-chlorinated dioxin and furan homolog totals and are not weighted in any way by toxic equivalency factors (TEFs). As such, they are a bulk measure of the total concentration of dioxin and furan congeners in these five homolog groups (i.e., not just the seventeen 2,3,7,8-substituted congeners for which TEFs are established).
- It is not the case that Total PCDD/Fs, computed as described above, play any meaningful part in the final BHHRA and BERA. In both cases, risks associated with dioxins and furans were assessed on the basis of dioxin/furan TEQ. In the BERA, the 2,3,7,8-TCDD congener was also identified individually as a COPC for benthic invertebrates.

- Total PCDD/Fs are not used to calculate dioxin TEQs. Dioxin TEQs are computed as the sum of the seventeen 2,3,7,8-substituted dioxin and furan congeners, after each has been weighted by its respective TEF. Therefore, your premise that the Total PCDD/Fs must have been calculated for the upriver sediment data to obtain the dioxin TEQs is not correct.

As Gene indicated in his previous email, the identification of chemicals for the background section of the RI was driven by the risk assessments and PRG lists available at the time. Because total PCDD/Fs did not emerge from this process, they were not calculated in the SCRA queries used to generate the upriver background flat file.

As for TBT, the aqueous results in the file Gene sent you last night were not used in the Section 7 sediment background evaluation. Only the three values reported on a dry weight basis for sediment, in units of ug/kg, were considered. (The aqueous results came through the original query and appear in the flat file because they have a matrix of SE [sediment], but a lab matrix is PW [porewater]. In case you are curious, the original source of these data are two U.S. Army Corps of Engineers dredged materials characterization studies performed in 2004 and 2005.)

Hope this helps clear things up.

Regards,

Bill

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From: Gene Revelas
Sent: Thursday, June 27, 2013 9:13 AM
To: Bill Locke; Jarrod Gasper
Subject: FW: Background Dataset

Do either of you recall why we did not do Total TCDD/F for BG?

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HEALTH ENVIRONMENT TECHNOLOGY SUSTAINABILITY

From: Koch, Kristine [<mailto:Koch.Kristine@epa.gov>]
Sent: Thursday, June 27, 2013 8:09 AM
To: Gene Revelas
Cc: Jarrod Gasper; 'James McKenna'; 'jworonets@anchorage.com'; Sandy Browning
Subject: RE: Background Dataset

I'm not clear on this. When will we get the background data for Total PCDD/F?

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From: Gene Revelas [<mailto:grevelas@integral-corp.com>]
Sent: Wednesday, June 26, 2013 9:34 PM
To: Koch, Kristine
Cc: Jarrod Gasper; 'James McKenna'; 'jworonets@anchorqea.com'; Sandy Browning
Subject: Background Dataset

Hi Kristine -

The 2011 RI background dataset is attached, in flat-file format. This file includes data for all of the key contaminants listed in EPA's revised Table 5.1-2, except for Total PCDD/F. Total PCDD/F has not previously been included in the background analysis. This dataset was created from three SCRA flat files dating to 2008. This combined dataset was updated in the spring of 2010 to reflect new qualifier and value information for the data from Survey WFLH07 that had been provided by EPA. We were not able to create this dataset from the Appendix H copy of the SCRA from the 2011 RI because that dataset inadvertently excluded samples above RM 26.1 (Willamette Falls). The background dataset includes 8 samples located above the falls. We will update the SCRA accordingly as part of on-going RI revision.

Please cc. my colleague Jarrod Gasper on any questions about the attached file.

Thanks,

Gene

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